

REMARKS/ARGUMENTS

The Office Action mailed January 12, 2004 has been received, its contents carefully noted, and the applied citation thoroughly studied. Accordingly, the foregoing revisions to the claims are tendered with the conviction that patentable contrast has now been made manifest over the known prior art. Accordingly, the Examiner is respectfully requested to favorably receive this amendment, entering it into the subject application. Moreover, all rejections and opinions tendered by the Examiner in the above-referenced Office Action are hereby respectfully traversed and reconsideration is respectfully requested.

Overview of Response to the Office Action

At the outset, applicants (both engineers for Bently Nevada, LLC a General Electric owned company and assignee of the present application) advise and undersigned believes and also advises the Examiner that Mukherjee teaches an invention whereby a predefined set of hard coded rules (written in a natural or high level language like PROLOG) can be applied to define the behavior of a dialog used for entering information into forms. Additionally, Mukherjee teaches of an opportunity to apply a variety of predefined rules to control the behavior of these forms without having to recompile and retest the application that is leveraging these rules. An important distinction here is that changes to the rules themselves would require a recompilation and retest. This distinction defines at least one difference between Mukherjee and the claimed invention.

Additionally, Applicants also advise that Mukherjee fails to teach a custom rule system for creating custom rules such that each rule is built as a set of predefined steps created by a user selecting, placing, and interconnecting individual steps to obtain an ordered series of

interconnected steps that are saved as a user created custom rule having an ordered series of interconnected steps and having a processor reading and processing the steps in the stored custom rule as they are stored in the database such that a parser or lexical analyzer is not required. Thus, the claimed invention is not about form manipulation by running a set of rules. A version of the claimed invention could be used to replace the PROLOG language used by Mukherjee.

Claim Rejections – 35 U.S.C. § 102(e)

The Examiner had rejected claims 1 through 20 under 35 U.S.C. §102(e) as being anticipated by Mukherjee (U.S. Patent 6,314,415, referred to as Mukherjee).

Undersigned has carefully read Mukherjee (**cited by applicant**) and fails to uncover the basis by which Mukherjee discloses each and every element of claims 1 through 14 as arranged in claims 1 through 14. In addition, undersigned has studied Mukherjee while comparing the requirements of claims 15 through 20 thereto and has failed to uncover the basis by which the Examiner applies Mukherjee to anticipate all of the required steps contained in claims 15 through 20 respectively.

The examiner bears the burden of presenting at least a prima facie case of anticipation. *In re Sun*, 31 USPQ 2d 1451, 1453 (Fed. Cir. 1993) (unpublished). A prima facie case of anticipation is established when the Examiner provides a single reference; that teaches or enables; each of the claimed elements as arranged in the claims; expressly or inherently; as interpreted by one of ordinary skill in the art.

For prior art to anticipate under 35 U.S.C. § 102, every element of the claimed invention must be **identically** disclosed, either expressly or under principles of inherency, in a single

reference. *Corning Glass Works v. Sumitomo Electric*, 9 U.S.P.Q. 2d 1962, 1965 (Fed. Cir. 1989) (emphasis added).

Accordingly, ". . . the exclusion of a claimed element, no matter how insubstantial or obvious, from a prior art reference is enough to negate anticipation." *Connell v. Sears, Roebuck & Co.*, 220 U.S.P.Q. 193, 198 (Fed. Cir. 1983).

Furthermore, it is not enough, however, that the reference discloses all the claimed elements in isolation. Rather, as stated by the Federal Circuit, the prior art reference must disclose each element of the claimed invention "*arranged as in the claim*" *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984) (emphasis added).

The above excerpts are from binding, compelling precedent within which the Examiner is constrained to operate for the basis by which rejections under 35 U.S.C. §102 are deemed proper.

With respect to the independent claim 1, the Examiner asserts that "Mukherjee anticipates a processor (Mukherjee, col 19, lines 34-35), a memory and a display both operatively coupled to said processor (Mukherjee, col 19, lines 34-37); a plurality of operand and operation rule steps stored within said memory (Mukherjee, col 19, lines 34-37; Examiner's Note (EN): operand and operation are synonymous with "if-then" or generic rules); means for displaying to a user graphical depictions of said plurality of operand and operation rule steps stored within said memory as an arrangement on said display such that said arrangement is comprised of a plurality of individual graphical operand and operation depictions each corresponding to at least one of said operand and operation rule steps (Mukherjee, col 19, lines 34-52; col 2, lines 19-38); means for a user to select and interconnect at least two of said plurality of individual graphical operand

and operation for creating a custom rule comprised of operand and operation rule steps corresponding to the user selection of the at least two of said plurality of individual graphical operand and operation depictions (Mukherjee, col 2, lines 19-38; EN: the form of Mukherjee is a representation of the rules and the specific characteristics of the form represent rule steps)."

In stark contrast to the Examiner's assertion, Mukherjee clearly teaches a dynamic prompting of information by displaying a set of initial prompts for information. This first set of information is then set through a rule processing system to determine what other form or information should be gathered from the user.

Specifically, Mukherjee provides a plurality of prompts each of which is associated with at least one of the logic-based rules in the knowledge base (Column 20, lines 48 through 50) for prompting users for information and generating forms based on predefined rules processing user input information. There is no teaching or suggestion in Mukherjee (or in any of the prior art of record) of creating custom rules from rule steps as claim 1 particularly points out and distinctly claims.

For a prior art reference to anticipate a claim, the reference must disclose each and every element of the claim with sufficient clarity to prove its existence in the prior art. *See In re Spada*, 911 F.2d 705, 708, 15 USPQ 2d 1655, 1657 (Fed. Cir. 1990). Additionally, the prior art reference must describe the applicant's claimed invention sufficiently to have placed a person of ordinary skill in the field of the invention in possession of it. **Although this disclosure requirement presupposes the knowledge of one skilled in the art of the claimed invention, that presumed knowledge does not grant a license to read into the prior art reference**

teachings that are not there. *Motorola, Inc. v. Interdigital Tech. Corp.*, 43 USPQ 2d 1481, 1490 (Fed. Cir. 1997)

Additionally, applicants again advise that they recognize the problems associated with the teachings of the known prior art (including Mukherjee) and that they direct the reader's attention to these problems in the back ground of the present invention (please see at least page 4, lines 7 through 11) wherein applicant recognizes that "some type of wizard interface may be employed to ask questions and then write code from answers. However, this is still problematic in that text has to be parsed in order for it to be converted into symbols that are then sent to an interpreter or compiler in order to obtain a resultant rule and the user may still have to understand the way previous rules where written."

Notwithstanding the foregoing, undersigned has amended claim 1 hereinabove in order to facilitate a resolution of this case and to further emphasize unique features of the claimed invention of this application which provide further contrasts from prior art teachings. Specifically, claim 1 has been amended hereinabove and now reads as follows: A custom rule system for creating custom rules, said custom rule system comprising in combination: a processor, a memory and a display both operatively coupled to said processor; a plurality of operand and operation rule steps stored within said memory; means for displaying to a user graphical icons of said plurality of operand and operation rule steps stored within said memory as a pallet on a first area of said display such that said pallet is comprised of a plurality of individual graphical operand and operation icons each corresponding to at least one of said operand and operation rule steps; means for a user to sequentially select a plurality of icons from said pallet and arrange said plurality of sequentially selected icons as an ordered series of icons on a second

area on said display; and means for a user to interconnect said plurality of sequentially selected icons sequentially arranged as said ordered series of icons on said second area of said display for creating a custom rule comprised of said user selected and interconnected ordered series of icons created by the user, and means for storing, in a database, said user created custom rule as an ordered series of operand and operation rule steps corresponding to said user selected and interconnected ordered series of icons created by the user such that said operand and operation rule steps are processed in the same order in which they are stored in said database resulting in the processing of said user created custom rule in accordance with the same order as said user selected and interconnected ordered series of icons created by the user.

Upon a careful reading of the patent to Mukherjee these amended teachings and requirements are clearly neither anticipated (nor rendered obvious) by the disclosure of Mukherjee. In addition, there is no teaching in any of the prior art of record to suggest providing Mukherjee with these teaching and requirements.

Specifically, Mukherjee fails to teach or suggest, *inter alia*, means for a user to sequentially select a plurality of icons from said pallet and arrange said plurality of sequentially selected icons as an ordered series of icons on a second area on said display; and means for a user to interconnect said plurality of sequentially selected icons sequentially arranged as said ordered series of icons on said second area of said display for creating a custom rule comprised of said user selected and interconnected ordered series of icons created by the user, and means for storing, in a database, said user created custom rule as an ordered series of operand and operation rule steps corresponding to said user selected and interconnected ordered series of icons created by the user such that said operand and operation rule steps are processed in the same order in

which they are stored in said database resulting in the processing of said user created custom rule in accordance with the same order as said user selected and interconnected ordered series of icons created by the user..

In stark contrast, Mukherjee teaches predefined logic-based rules stored in the knowledge base and a screen displayed to a user having a plurality of prompts each of which is associated with at least one of the predefined logic-based rules in the knowledge base for prompting users for information and generating forms based on the predefined logic-based rules processing user input information. Please see abstract and Column 20, lines 32 through 50.

Hence, the absence from Mukherjee of these newly claimed features negates anticipation as supported by the Court of Appeals for the Federal Circuit having articulated in binding, compelling precedent that ". . . [the] absence from the reference of any claimed element negates anticipation". *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986).

In light of the above remarks, Mukherjee clearly does not anticipate (nor render obvious) claim 1 particularly as now amended, and there is no teaching in any of the prior art of record to suggest providing Mukherjee with these novel features. Accordingly, amended claim 1 should now warrant patentable status and withdrawal of the rejection of claim 1 under 35 U.S.C. §102(e) is respectfully requested.

Claims 2 and 3 have been amended hereinabove and depend in series from claim 1 and thus, undersigned relies on the arguments made hereinabove with respect to amended claim 1 and on the amendments made to claims 2 and 3 to establish that patentable distinctiveness has been made manifest with respect to claims 2 and 3.

Particularly, claim 2 has been amended to include the system of claim 1 further including a means for displaying a rules window on said display and wherein said means for the user to sequentially select and interconnect at least two of said plurality of individual graphical operand and operation depictions sequentially selected icons includes means for a user to select, drag, and drop the at least two of said plurality of sequentially selected icons from said pallet to said second area on said display and then interconnect said plurality of sequentially selected icon for creating said user created custom rule.

Additionally, claim 3 has been amended to include the system of claim 1 further including an extraction module for extracting information engendered from sensors and a processor operatively coupled to both said extraction module and said database for processing said extracted information according to said user created custom rule having said ordered series of operand and operation rule steps having said same order as said user selected and interconnected ordered series of icons created by the user such that said processor processes each rule step in said ordered series of operand and operation rule steps as they are stored in the database.

Mukherjee clearly does not anticipate (nor render obvious) claims 2 and 3 particularly as now amended, and there is no teaching in any of the prior art of record to suggest providing Mukherjee with these novel features. Accordingly, amended claims 2 and 3 should now warrant patentable status and withdrawal of the rejection of claims 2 and 3 under 35 U.S.C. §102(e) is respectfully requested.

With respect to the independent claim 4, the Examiner asserts that “Mukherjee anticipates a database comprised of a multiplicity of operand and operation rule steps, each said rule step

having specific executable code associated therewith (Mukherjee, col 2, lines 19-62); a computer operatively coupled to said database and including a display displaying to a user graphical depictions of said multiplicity of operand and operation rule steps stored within said database As an array of a multiplicity of operand and operation rule steps stored within said database as an array of multiplicity of individual graphical operand and operation depictions displayed within a first window on said display and each corresponding to at least one of said multiplicity of operand and operation rule steps; (Mukherjee, col 19, lines 34-52); means for displaying a rules window on said display (Mukherjee, col 20, lines 1-4); means for a user to interface with said array displayed in said first window to select and place a plurality of said multiplicity of individual graphical operand and operation depictions from said array to said rules window for graphical display (Mukherjee, col 19, lines 34-52); and, means for interconnecting plurality of said multiplicity of individual graphical operand and operation depictions displayed in said rules window for creating a custom rule (Mukherjee, col 19, lines 63-67; EN: linking of the prompts is a manifestation of rule interconnection).”

In stark contrast to the Examiner’s assertion, and as noted hereinabove, Mukherjee provides a plurality of prompts each of which is associated with at least one of the predefined logic-based rules in a knowledge base for prompting users for information and generating forms based on the predefined logic-based rules processing user input information. Please see abstract and column 20, lines 48 through 50. There is no teaching or suggestion in Mukherjee (or in any of the prior art of record) of creating custom rules from rule steps as claim 4 particularly point outs and distinctly claims.

Notwithstanding the foregoing, undersigned has amended claim 4 hereinabove in order to facilitate a resolution of this case and to further emphasize unique features of the claimed invention of this application which provide further contrasts from prior art teachings. Specifically, claim 4 has been amended hereinabove and now reads as follows: a custom rule system for creating custom rules, said system comprising in combination: a database comprised of a multiplicity of operand and operation rule steps, each said rule step having specific executable code associated therewith; a computer operatively coupled to said database and including a display for displaying to a user graphical depictions of said multiplicity of operand and operation rule steps stored within said database as an array of a multiplicity of individual graphical operand and operation depictions displayed within a first window on said display and each corresponding to at least one of said multiplicity of operand and operation rule steps; means for displaying a rules window on said display; means for a user to interface with said array displayed in said first window to select and place a plurality of said multiplicity of individual graphical operand and operation depictions from said array to said rules window as a user ordered series of selected and placed depictions; and means for a user to interconnect said plurality of selected and placed depictions such that a custom rule is created by the user defined by said user ordered series of said user selected, placed, and interconnected depictions; and means for storing, in said database, said user created custom rule as an ordered series of operand and operation rule steps corresponding to said by said user ordered series of said user selected, placed, and interconnected depictions; and an extraction module for extracting information engendered from sensors and a processor operatively coupled to both said extraction module and said database for processing said operand and operation rule steps in the same order in which

they are stored in said database resulting in the processing of said user created custom rule in accordance with the same order as said user ordered series of said user selected, placed, and interconnected depictions.

Upon a careful reading of the patent to Mukherjee these amended teachings and requirements are clearly neither anticipated (nor rendered obvious) by the disclosure of Mukherjee. In addition, there is no teaching in any of the prior art of record to suggest providing Mukherjee with these teaching and requirements.

Specifically, Mukherjee fails to teach or suggest at least the following claimed elements: means for a user to interface with said array displayed in said first window to select and place a plurality of said multiplicity of individual graphical operand and operation depictions from said array to said rules window as a user ordered series of selected and placed depictions; and means for a user to interconnect said plurality of selected and placed depictions such that a custom rule is created by the user defined by said user ordered series of said user selected, placed, and interconnected depictions; and means for storing, in said database, said user created custom rule as an ordered series of operand and operation rule steps corresponding to said by said user ordered series of said user selected, placed, and interconnected depictions; and an extraction module for extracting information engendered from sensors and a processor operatively coupled to both said extraction module and said database for processing said operand and operation rule steps in the same order in which they are stored in said database resulting in the processing of said user created custom rule in accordance with the same order as said user ordered series of said user selected, placed, and interconnected depictions.

In stark contrast, Mukherjee teaches predefined logic-based rules stored in the knowledge base and a screen displayed to a user having a plurality of prompts each of which is associated with at least one of the predefined logic-based rules in the knowledge base for prompting users for information and generating forms based on the predefined logic-based rules processing user input information. Please see abstract and Column 20, lines 32 through 50.

Hence, the absence from Mukherjee of the above claimed elements clearly negates anticipation and even an absence on any one of the above claimed elements negates anticipation as supported by the Court of Appeals for the Federal Circuit having articulated in binding, compelling precedent that ". . . [the] absence from the reference of any claimed element negates anticipation". *Kloster Speedsteel AB v. Crucible Inc.*, 793 F.2d 1565, 230 U.S.P.Q. 81 (Fed. Cir. 1986).

Additionally, and as noted hereinabove, anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference and that those elements must either be inherent or disclosed expressly and **must be arranged as in the claims**.

In light of the above remarks, Mukherjee clearly does not anticipate (nor render obvious) claim 4 particularly as now amended, and there is no teaching in any of the prior art of record to suggest providing Mukherjee with these features. Accordingly, amended claim 4 should now warrant patentable status and withdrawal of the rejection of claim 4 under 35 U.S.C. §102(e) is respectfully requested.

Claims 5 through 8 depend in series from independent claim 4 and thus, undersigned relies on the arguments made hereinabove with respect to amended claim 4 to establish that patentable distinctiveness has been made manifest with respect to claims 5 through 8.

Accordingly, withdrawal of the rejection of claims 5 through 8 under 35 U.S.C. §102(e) is respectfully requested.

Claims 9 through 14 have been cancelled hereinabove without prejudice or disclaimer as to their contents and thus, undersigned will not further burden the record with commentary on these claims. Accordingly, the Examiner's rejection is believed to be rendered moot with respect to claims 9 through 14.

The Examiner had also rejected claim 15 under 35 U.S.C. §102(e) as also being anticipated by Mukherjee. In light of the above remarks, Mukherjee clearly does not anticipate (nor render obvious) claim 15 particularly as now amended, and there is no teaching in any of the prior art of record to suggest providing Mukherjee with these claimed features.

Specifically, and referring to column 2, Mukherjee includes "a rule-based expert system and method that uses high-level rules for determining what graphical interface features should be displayed to a user" and "Consequently, people other than programmers can customize and change a graphical user interface easily and without errors." Hence, *only the application of the rules can be changed without recoding and testing of the computer software. A changed to the rule logic itself would result in recoding and re-testing.* Please see column 2, lines 25 through 35. Additionally, Mukherjee teaches that "Certain embodiments of the present invention include a scanner and related software that captures data fields from existing paper forms; a database for storing field definitions and their relationships together with rules for determining which user interface features to display at a particular point in a data entry sequence; an inference engine for executing the rules; a graphical user interface component that provides the user with dynamically generated screen configurations based on execution of

the rules (which are fired based on inferences drawn from data the user has entered); and a printing component that **generates paper and/or electronic forms based on the user's inputs and the execution of the rules**. Please see column 2, lines 39 through 51.

Thus, Mukherjee teaches “a database for storing rules for determining which user interface features to display at a particular point in a data entry sequence” **not storing individual rule steps comprised of executable code within a database coupled to a computer** as claim 15 particularly points out and distinctly claims. Additionally, Mukherjee teaches an “inference engine for **executing the rules** and a graphical user interface component that **provides the user with dynamically generated screen configurations based on execution of the rules** (which are fired based on inferences drawn from data the user has entered)” **not depicting said rules steps on a display of said computer as a graphical arrangement of icons** as claim 15 particularly points out and distinctly claims. Furthermore, Mukherjee teaches “a printing component that generates paper and/or electronic forms based on the user's inputs and the execution of the rules” **not creating a custom rule by interfacing with said graphical arrangement of icons** as claim 15 particularly points out and distinctly claims.

The Court of Appeals for the Federal Circuit has set a very high standard for a finding of anticipation, stating that: “. . . anticipation requires that each and every element of the claimed invention be disclosed in a single prior art reference.” *Akzo N.V. v. United States ITC*, 808 F.2d 1471, 1 U.S.P.Q.2d 1241 (Fed. Cir. 1986). And further, “those elements must either be inherent or disclosed expressly . . .” *Verdegaal Bros., Inc. v. Union Oil Co.*, 814 F.2d 628, 2 U.S.P.Q.2d 1051 (Fed. Cir. 1987). “. . . and must be arranged as in the claim[s] . . .” *Carella v. Starlight Archery & Pro Line Co.*, 804 F.2d 135, 231 U.S.P.Q. 644 (Fed. Cir. 1986).

Notwithstanding the foregoing, undersigned has amended claim 15 hereinabove in order to facilitate a resolution of this case and to further emphasize unique features of the claimed invention of this application which provide further contrasts from prior art teachings. Specifically, claim 15 has been amended hereinabove and now includes the further limitations of storing, in said database, said user defined custom rule as an ordered series of operand and operation rule steps corresponding to said user ordered series of selected, placed, and interconnected icons and processing said rule steps in said ordered series of operand and operation rule steps in the same order in which they are stored in said database resulting in the processing of said user defined custom rule in accordance with the same order as said user ordered series of said user selected, placed, and interconnected icons.

Hence, Mukherjee clearly does not anticipate (nor render obvious) claim 15 particularly as now amended, and there is no teaching in any of the prior art of record to suggest providing Mukherjee with these novel features. Accordingly, amended claim 15 should now warrant patentable status and withdrawal of the rejection of claim 15 under 35 U.S.C. §102(e) is respectfully requested.

Claims 16 and 17 have been cancelled hereinabove without prejudice or disclaimer as to their contents and thus, undersigned will not further burden the record with commentary on these claims. Accordingly, the Examiner's rejection is believed to be rendered moot with respect to claims 16 and 17.

Claim 18 depends in series from independent claim 15 and thus, undersigned relies on the arguments and amendments made hereinabove with respect to amended claim 15 to establish that

Serial No. 09/663,325
Amdt. dated July 12, 2004

patentable distinctiveness has been made manifest with respect to claim 18. Accordingly, withdrawal of the rejection of claim 18 under 35 U.S.C. §102(e) is respectfully requested.

Claims 19 and 20 have been cancelled hereinabove without prejudice or disclaimer as to their contents and thus, undersigned will not further burden the record with commentary on these claims. Accordingly, the Examiner's rejection is believed to be rendered moot with respect to claims 19 and 20.

With respect to the other citations that the Examiner had cited to show the state of the art further, general agreement appears to exist with respect to their limited applicability. Hence, further commentary on these non-applied citations will not be made at this time so as to not further burden the record. Suffice to say, however, that none of these references when considered singly or in any conceivable combination teach or render obvious the nexus of patentability as defined in the claims now before the Examiner.

Conclusion

It is undersigned sincere belief that all issues raised by the Examiner in the last Office Action have been satisfactorily addressed herein. Therefore, in view of the foregoing, it is respectfully requested that the Examiner pass this case to issue. If, upon further consideration, the Examiner believes further issues remain outstanding or new ones have been generated, undersigned respectfully requests that the Examiner call undersigned and suggest a convenient time when an **interview** may be conducted to expeditiously resolve same.

Dated: July 12, 2004

Respectfully Submitted:


Dennis A. DeBoo

Dennis A. DeBoo
Telephone (916) 419-5498
Registration No.: 42,471